



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,574	04/04/2006	Kouichi Sakata	2101-27	9285
23117 7590 03/17/2008 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER PEPTONE, MICHAEL F				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
03/17/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/574,574

Applicant(s)

SAKATA ET AL.

Examiner

MICHAEL PEPITONE

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/4/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/55/08)
Paper No(s)/Mail Date 4/4/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-5, and 7-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Joachimi *et al.* (US 2003/0130381).

Regarding claims 1-2: Joachimi *et al.* teaches a laser weldable composition (¶ 1, 26-31) comprising polybutylene terephthalate [instant claim 2] (¶ 42, 47-48, 50-51, 53, 102), a polycarbonate (¶ 54), an elastomer (¶ 32-34, 115, 125-128), and a plasticizer (¶ 117, 124).

Regarding claims 4-5: Joachimi *et al.* teaches dioctyl phthalate {phthalic acid dioctyl ester} (¶ 124), which has an index of refraction of 1.49 [instant claim 5].

Regarding claims 7-8: Joachimi *et al.* teaches a glassy filler [instant claim 7-8] (¶ 109-11).

Regarding claim 9: Joachimi *et al.* teaches a nucleating agent (¶ 115, 117, 122).

Regarding claims 10-11: Joachimi *et al.* teaches transmission tests of injected molded [instant claim 11] parts using 800-1200 nm light (¶ 138-141, 147, 151, 154).

The Office realizes that all the claimed effects or physical properties are not positively stated by the reference. However, the reference teaches all of the claimed reagents. Therefore, the claimed effects and physical properties, i.e. a fluctuation range of light transmittance is not

more than 10%, would inherently be achieved by a composition with all the claimed ingredients.

If it is the applicants' position that this would not be the case: (1) evidence would need to be presented to support applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties and effects with only the claimed ingredients.

Regarding claims 12-13: Joachimi *et al.* teaches laser welding of a molded product and counterpart [instant claim 12] (§ 1, 24-25, 139-149, 155-161), wherein the first molded product is in contact with the laser beam {laser transparent} and the counterpart is located on the receiving side [instant claim 13] (§ 160-161, tables 5 and 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Joachimi *et al.* (US 2003/0130381), as applied to claim 1 above, in further view of Houston *et al.* (US 2002/0190408), when taken with Halder *et al. J. Appl. Polym. Sci.*, **1990**, 39, 1251.

Regarding claim 3: Joachimi *et al.* teaches the basic claimed composition [as set forth above with respect to claim 1].

Joachimi *et al.* does not teach an elastomer with a refractive index of 1.52 to 1.59. However, Houston *et al.* teaches the refractive index of an elastomer should be chosen to produce an iso-refractive system between the two phases present in order to minimize light scattering (§ 54). Joachimi *et al.* and Houston *et al.* are combinable because they are concerned with a similar technical difficulty, namely the preparation of plasticized thermoplastic-elastomer moldings (§ 1, 52). At the time of invention a person of ordinary skill in the art would have found it obvious to have combined elastomers with a refractive index of 1.52-1.59, as taught by Houston *et al.* in the invention of Joachimi *et al.*, and would have been motivated to do so since Houston *et al.* suggests that matching the refractive indexes of the phases {elastomeric and thermoplastic} provides materials with reduced light scattering (§ 54), and is an equivalent alternative means of providing a plasticized thermoplastic-elastomer molding material for laser welding.

Halder *et al.* provides evidence for the refractive index of PBT/PC blends {1.43-1.66} (pg. 1255, Table II).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Joachimi *et al.* (US 2003/0130381), as applied to claim 1 above, in further view of Uno *et al.* (US 2002/0188073).

Regarding claim 6: Joachimi *et al.* teaches the basic claimed composition [as set forth above with respect to claim 1].

Joachimi *et al.* does not teach composition comprising 1-50 parts by weight of elastomer, 5-100 parts by weight polycarbonate, and 1-10 parts by weight plasticizer (based on 100 parts PBT). However, Uno *et al.* teaches a polyester molding composition comprising 30 to 95 parts by weight PBT, 1-30 parts by weight of elastomer, 1-30 parts by weight polycarbonate {total is 100 parts by weight}, and 0.1-5 parts by weight silicone oil [plasticizer] {based on total of resin} (§ 1-2, 11-15). Joachimi *et al.* and Uno *et al.* are combinable because they are concerned with a similar technical difficulty, namely the preparation of PBT/PC/elastomer moldings. At the time of invention a person of ordinary skill in the art would have found it obvious to have combined the ratios of PC/elastomer/plasticizer, as taught by Uno *et al.* in the invention of Joachimi *et al.*, and would have been motivated to do so since Uno *et al.* suggests that such PBT/PC/elastomer resin compositions provide moldings having excellent mechanical strength and chemical resistance (§ 1-2, and 11), and is an equivalent alternative means of providing a plasticized PBT/PC/elastomer molding material for laser welding.

The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. See attached form PTO-892.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PEPITONE whose telephone number is (571)270-3299. The examiner can normally be reached on M-F, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/
Supervisory Patent Examiner, Art Unit 1796
13-Mar-08

MFP
6-March-08